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1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			DUNWOODY	DY, AARON M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

U.S. Patent and Trademark Office PTO-326 (Rev. 04-01)

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#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9, 16 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9, 16 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the method of manufacturing a coupling member, only structural limitations are cited.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10, 13, 14, 17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5916026, Sadakata.

In regards to claim 10, Sadakata discloses an elastic shaft coupling (101a) comprising a joint member (104) formed with a hole; a hollow shaft member (102a) received in the joint member; an elastic member (111) interposed radially between the joint member and the hollow shaft member to flex and deform upon relative rotation

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between the joint member and the hollow shaft member; stopper portions provided, respectively, on the joint member and the hollow shaft member to restrict the relative rotation therebetween within a predetermined amount; and the stopper portions provided on the joint member each including a pair of stopper faces spaced from each other in a peripheral direction to form a gap therebetween, the stopper portions provided on the hollow shaft member each being radially outwardly projected into the gap formed between the stopper faces of the corresponding stopper portion provided on the joint member, the stopper portions on the hollow shaft member being formed by flaring an end of the hollow shaft member to be projected radially outwardly.

The method of forming, in particular, the stopper portions on the hollow shaft member being formed by flaring an end of the hollow shaft member to be projected radially outwardly, the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

In regards to claims 13 and 19, Sadakata discloses the outer diameter of each of the stopper portion on the hollow shaft member being formed smaller than the outer diameter of the corresponding stopper portion on the joint member.

In regards to claims 14 and 20, Sadakata discloses the radially outermost points of contact of each stopper portion on the hollow shaft member with the corresponding stopper faces on the joint member are disposed inwardly from respective centers of the stopper faces along a radial direction.

In regards to claim 17, Sadakata discloses an elastic shaft coupling comprising a joint member formed with a hole; a hollow shaft member received in the joint member,

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the hollow shaft member having an original wall thickness an elastic member interposed radially between the joint member and the hollow shaft member to flex and deform upon relative rotation between the joint member and the hollow shaft member; stopper portions provided, respectively, on the joint member and the hollow shaft member to restrict the relative rotation therebetween within a predetermined amount; and the stopper portions provided on the joint member each including a pair of stopper faces spaced from each other in a peripheral direction to form a gap therebetween, the stopper portions provided on the hollow shaft member each being radially outwardly projected into the gap formed between the stopper faces of the corresponding stopper portion provided on the joint member, the stopper portions on the hollow shaft member being formed by flaring an end of the hollow shaft member while applying axial pressure on the end to produce a root portion of the stopper portion on the hollow shaft member having an thickness (tl) greater than the original wall thickness (t2) of the hollow shaft member.

A comparison of the recited process with the prior art processes does NOT serve to resolve the issue concerning patentability of the product. <u>In re Fessman</u>, 489 F2d 742, 180 U.S.P.Q. 324 (CCPA 1974). Whether a product is patentable depends on whether it is known in the art or it is obvious, and is not governed by whether the process by which it is made is patentable. <u>In re Kluq</u>, 333 F2d 905, 142 U.S.P.Q. 161 (CCPA 1964). In an ex parte case, product-by-process claims are not construed as being limited to the product formed by the specific process recited. <u>In re Hirao et al.</u>, 535 F2d 67, 190 U.S.P.Q. 15, see footnote 3 (CCPA 1976). Therefore, the stopper

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portions on the hollow shaft member being formed by flaring an end of the hollow shaft member while applying axial pressure on the end to produce a root portion of the stopper portion on the hollow shaft member having an thickness (tl) greater than the original wall thickness (t2) of the hollow shaft member is given little patentable weight.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadakata.

In regards to claim 11 and 21, Sadakata discloses the claimed invention except for the hollow shaft member being a steel pipe of a low carbon steel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the hollow shaft member from a steel pipe of a low carbon steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

#### Allowable Subject Matter

Claims 2, 5, 6, 8, 15 and 22 are allowed.

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Claims 12 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 9, 16 and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### Response to Arguments

Applicant's arguments with respect to claims 2, 5 and 6 have been considered but are moot in view of the new ground(s) of rejection.

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it illustrates the current state of the art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aaron M Dunwoody whose telephone number is (703)

306-3436. The examiner can normally be reached on Monday - Friday between 7:30

am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone

numbers for the organization where this application or proceeding is assigned are (703)

872-9302 for regular communications and (703) 872-9327 for After Final

communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 308-

1113.

.amd

June 2, 2003

Lynne H. Browne
Supervisory Patent Examiner

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**Technology Center 3670**